



FEATHERS AND NESTS

All Age Levels

Do you participate in the fastest growing sport in the United States? If you watch birds, you do. Birds are present all over the world and bring joy to many who observe bird songs and behavior. These bird observers are called birders.

To earn the patch and become a birder, **complete four of the following activities, including activity number 1.**

1. Make a field guide of birds common to the area in which you live

- Color pictures of ten common birds according to their marking descriptions.
- Make a cover for the colored pages.
- Staple or tie pages and cover.
- Refer to the field guide when identifying birds in meadows, forests and your own backyard.

2. Sing a morning bird song chorus

- Use a field guide to become familiar with how some common birds look.
- Assign each girl a bird song they will be responsible for learning.
- Using a clock, begin to move the hands to show 4 am through 8 am. As the hour hand approaches each hour the girls will sing their song when the birds would.
- All girls will continue to sing until the hour hand approaches noon. Birds usually are quiet during the day by noon time.

Bird Chorus

4 am Robin: "Cheerio, cheery me, cheery me"
Ovenbird: "teacher-teacher-teacher"
White-throated sparrow: "poor Sam Peabody-Peabody-Peabody"

5 am Eastern meadowlark: "sweet spring is here"
Red-winged blackbird: "konk-la-ree"

6 am Carolina chickadee: "chick-a-dee-dee-dee"
Yellow warbler: "sweet, sweet, sweet, I'm so sweet"

7 am Goldfinch: "potato chip – potato chip"
Phoebe: "fiby-fiby"
White-breasted nuthatch: "yank-yank"

8 am until noon All birds sing until the noon hour

3. Go Birding

- Go on a walk to bird habitats (ponds, lakes, rivers and forests).
- Follow the Birdwatchers Code of Conduct.
- Try to identify birds by their markings and songs. Multiple binoculars can be checked out in advance. Please contact the Camp Director for more information
- Use a checklist to keep track of birds identified (checklist is on the last page of this packet)

Birdwatchers use field marking to help them identify birds. The following are examples of field markings:

- What is the shape of the bill? (long, short, thin, thick, hooked)
- What is the shape of the tail? (pointed, round, square, forked)
- What colors occur on each part of the body?
- Are there colors in solid patches, spots, streaks or bars?
- What are the colors and marks on the head? (crown, cheek, throat, eye)
- Does the bird have an eye ring, wing-bars or crest?
- Can you see certain colors when the bird moves or flies?

A Birder's Code of Conduct

- Ask permission before entering private property.
- Do not litter, talk loudly, or make other loud noises.
- Do not trample plants or harm other animals to look at a bird.
- Observe nests with baby birds from a distance.
- Do not flush (scare away) birds unnecessarily, especially when other birders are watching.

Plants growing in a bird's habitat (ponds, forests, wetlands, rivers and backyards) can provide food and shelter for many birds. Different species of birds prefer different foods and places to make nests. Therefore, it is important to have a variety of plants growing in bird habitats. See if you can find any birds living the following trees or shrubs.

Trees

Attracts

Beech	Carolina chickadee, wood duck, purple finch, common grackle, blue jay, White-breasted nuthatch, yellow-bellied sapsucker, white-throated sparrow, tufted titmouse, downy woodpecker
Hackberry	Eastern bluebird, northern cardinal, cedar waxwing, American crow, northern mockingbird, American robin, hermit thrush, tufted titmouse, pileated woodpecker
Hickory	Blue jay, American crow, wood duck, white-breasted nuthatch, yellow-bellied sapsucker
Maple	Northern cardinal, Carolina chickadee, purple finch, American goldfinch, yellow-bellied sapsucker, song sparrow
Oak	Downy woodpecker, Caroline chickadee, tufted titmouse, northern cardinal, blue jay, eastern meadowlark, white-breasted nuthatch, mourning dove, hermit thrush, wood duck, mallard, American crow
Sassafras	Northern mockingbird, American robin, hermit thrush, eastern bluebird, eastern phoebe
Sweet Gum	Northern cardinal, Carolina chickadee, mourning dove, purple finch, American goldfinch, mallard, yellow-bellied sapsucker, white-throated sparrow, Carolina wren

Shrubs

Attracts

Muscadine	Northern cardinal, house finch, purple finch, American robin, blue jay, American crow, yellow-bellied sapsucker, European starling, hermit thrush, pileated woodpecker
Trumpet vine	Ruby-throated hummingbird
Virginia Creeper	White-breasted nuthatch, house finch, purple finch, pileated woodpecker, tufted titmouse, eastern bluebird, American robin, wood thrush, hermit thrush, northern mockingbird, American crow, Carolina chickadee

4. Make a Bluebird or Screech Owl nesting box

- Use blueprints to make a box that is the perfect size for the type of bird you wish to provide a nesting box.
- Build the box with the help of an adult.
- Determine where the best place for the box is. Consider what the bird eats, where it will find water and be safe from predators.
- Place the box in the appropriate place.

5. Help Make a Nest

- Collect things from your home or camp that birds can use to make a nest.
 - Strips of paper
 - Scraps of cloth
 - String
 - Bread ties
 - Cotton
 - Yarn
 - Grass clippings
 - Dog or cat fur
 - Dryer lint
 - Wire
- Place item in several small wicker baskets.
- Hang the baskets in trees in areas where a bird may want to make a nest.
- Observe bird behavior and amount of nesting materials used.

6. Eating Experiments

- Make several types of bird feeders with different types of food.
- Place the feeders in different areas, (ex. Girl's homes, church, schools).
- Observe and record which birds visit which feeders to determine the type of food different birds prefer.
- Go on a walk looking for plants that naturally provide those types of food.

Bird Feeder Designs

1. **Suet Bag:** Fill a plastic-mesh onion or potato bag with a suet cake or orange halves and hang it in a tree.
2. **Pine Cone Feeder:** Collect large pine cones and tie string or yarn around the base of each one. Spoon peanut butter in between the open scales of the cone. Roll the cone in bird seed and hang it from a tree.
3. **Bowl Feeder:** Drill 3 holes around the rim of a wooden bowl or coconut shell. Drill a drainage hole in the bottom. Attach string or wire and hang in a tree or on a pole. Fill the feeder with seed.
4. **Soda Bottle Thistle Feeder:** Use a cleaned plastic soda bottle with the cap in place. Thread a piece of wire or wire hanger through the base of the bottle to make a hanger. The bottle will hang upside down. Cut pairs of holes on each side of the bottle near the neck. Insert one or two pencil sized sticks or dowels in the holes for perches. Cut a small feeding hole one inch above each perch. Fill the bottle with seed and re-cap. Hang the feeder from a tree or pole.
5. **Decorate a Wild Tree:** String popcorn, berries, raisins, apples, oranges, nuts, cereal, stale bread, doughnuts, etc. on heavy thread or string. Drape the strings of food (garland) on evergreen trees such as pine, spruce, and hemlock. Birds can seek shelter in these trees throughout the winter and food, thanks to you!

7. Celebrate International Migratory Bird Day

- Plan on spending the second Saturday of May with other girls and birders to bird and have fun.
- Check your local nature center and parks for organized activities.

BIRDS WHERE I LIVE CHECK-LIST

Use this list each time you go birding to keep track of how many birds you can identify. Below is a check-list of 65 birds commonly found in Eastern Tennessee.

Birds listed in *italics* are long distance neotropical migrants that nest in North America but spend the winter months in Central or South America.

Status Codes by birds name are as follows: **P**-Permanent Resident; **S**-Summer Resident; **W**-Winter Resident, **M**-Migrant

- | | | |
|---|---|--|
| <input type="checkbox"/> Common Loon (M) | <input type="checkbox"/> <i>Chimney Swift</i> (S) | <input type="checkbox"/> Cedar Waxwing (P) |
| <input type="checkbox"/> Great Blue Heron (P) | <input type="checkbox"/> <i>Ruby-throated Hummingbird</i> (S) | <input type="checkbox"/> European Starling (P) |
| <input type="checkbox"/> Green Heron (S) | <input type="checkbox"/> Belted Kingfisher (P) | <input type="checkbox"/> <i>Tennessee Warbler</i> (M) |
| <input type="checkbox"/> Black-crowned Night Hawk (S) | <input type="checkbox"/> Yellow-bellied sapsucker (W) | <input type="checkbox"/> <i>Yellow Warbler</i> (M) |
| <input type="checkbox"/> Canada Goose (P) | <input type="checkbox"/> Downy Woodpecker (P) | <input type="checkbox"/> Ovenbird (M) |
| <input type="checkbox"/> Wood Duck (P) | <input type="checkbox"/> Pileated Woodpecker (P) | <input type="checkbox"/> House Sparrow (P) |
| <input type="checkbox"/> Mallard (P) | <input type="checkbox"/> Eastern Phoebe (P) | <input type="checkbox"/> Northern Cardinal (P) |
| <input type="checkbox"/> Common Goldeneye (W) | <input type="checkbox"/> <i>Purple Martin</i> (S) | <input type="checkbox"/> <i>Rose-breasted Grosbeak</i> (M) |
| <input type="checkbox"/> Hooded Merganser (W) | <input type="checkbox"/> <i>Barn Swallow</i> (S) | <input type="checkbox"/> <i>Indigo Bunting</i> (S) |
| <input type="checkbox"/> Turkey Vulture (P) | <input type="checkbox"/> Blue Jay (P) | <input type="checkbox"/> Eastern Towhee (P) |
| <input type="checkbox"/> Osprey (S) | <input type="checkbox"/> American Crow (P) | <input type="checkbox"/> Song Sparrow (P) |
| <input type="checkbox"/> Sharp-shinned Hawk (P) | <input type="checkbox"/> Carolina Chickadee (P) | <input type="checkbox"/> White-throated Sparrow (W) |
| <input type="checkbox"/> Cooper's Hawk (P) | <input type="checkbox"/> Tufted Titmouse (P) | <input type="checkbox"/> Dark-eyed Junco (W) |
| <input type="checkbox"/> Red-shouldered Hawk (P) | <input type="checkbox"/> White-breasted Nuthatch (P) | <input type="checkbox"/> Red-winged Blackbird (M) |
| <input type="checkbox"/> Red-tailed Hawk (P) | <input type="checkbox"/> Carolina Wren (P) | <input type="checkbox"/> Eastern Meadowlark (P) |
| <input type="checkbox"/> American Kestrel (W) | <input type="checkbox"/> House Wren (M) | <input type="checkbox"/> Common Grackle (S) |
| <input type="checkbox"/> Killdeer (P) | <input type="checkbox"/> Eastern Bluebird (P) | <input type="checkbox"/> Brown-headed Cowbird (P) |
| <input type="checkbox"/> Mourning Dove (P) | <input type="checkbox"/> Hermit Thrush (W) | <input type="checkbox"/> <i>Baltimore Oriole</i> (M) |
| <input type="checkbox"/> Eastern Screech Owl (P) | <input type="checkbox"/> <i>Wood Thrush</i> (S) | <input type="checkbox"/> Purple finch (W) |
| <input type="checkbox"/> Great Horned Owl (P) | <input type="checkbox"/> American Robin (P) | <input type="checkbox"/> House Finch (P) |
| <input type="checkbox"/> Barred Owl (P) | <input type="checkbox"/> Northern Mockingbird (P) | <input type="checkbox"/> American Goldfinch (P) |
| <input type="checkbox"/> <i>Common Nighthawk</i> (S) | | <input type="checkbox"/> Evening Grosbeck (W) |